AMENDMENTS TO THE SPECIFICATION

Please amend page 1, lines 15-18 as follows:

HIGH PERFORMANCE SYSTEM AND METHOD FOR CAPTURING AND ABSORBING RADIATION

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RELATED APPLICATION

This patent application is related to a concurrently-filed patent application Ser. No. 10/720,650 entitled "Simple High Accuracy High Energy Calorimeter" ~~bearing attorney docket number BOEI-1-1198~~, the contents of which are hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention relates generally to high performance systems for capturing energy and, more specifically, to capturing radiation.

BACKGROUND OF THE INVENTION

Many modern devices are capable of outputting high levels of electro-magnetic energy in the form of radiation, such as high-energy lasers and high powered-lamps like solar simulator lamps. In certain circumstances, it is desirable to capture either a portion of or the entire output beam from such devices and, in either case, reduce the back-reflected and/or scattered radiation to zero. When a device is used to simply capture all or part of the radiant

Please amend page 6, line 6 as follows:

In addition to the first and second chambers 12 and 16, if desired the body 18 may include other features to create a high-energy calorimeter. Features of a high-energy calorimeter that may be advantageously included with the body 18, along with the first and second chambers 12 and 16, are set forth in a concurrently filed U.S. Patent Application Ser. No. 10/720,650 entitled "Simple High Accuracy High Energy Calorimeter" ~~bearing attorney docket number BOEI-1-1198~~, the contents of which are hereby incorporated by reference.

While the beam capture device 10 is well suited for capturing and absorbing radiation, the energy content of which is measured with a high-energy calorimeter, it will be appreciated that the beam capture device 10 need not be associated with a high energy calorimeter. For example, it will be appreciated that the beam capture device 10 suitably functions as a beam dump when used without instrumentation in addition to functioning in concert with a high-energy calorimeter.

In one exemplary embodiment of the device 10, a mounting clamp 20 extends from the body 18. The clamp 20 permits the body 18 to be attached, via any suitable fasteners 50, through bores 22 defined in the clamp 20 to a support structure 23. The support structure 23 might be the outlet port for the source of the beam 14.

The first chamber 12 defines an opening 24 at a first end 26 of the first chamber 12. The opening 24 defines an aperture 25 in the body 18 that advantageously is sized to admit the entire beam 14. In one presently preferred embodiment, the opening 24 is larger than a footprint of the beam 14.

First and second faces 28 and 30 extend from the first end 26 to a throat 32 at a second end 34 of the first chamber 12. The first and second faces 28 and 30 define an angle α between them. The first and second faces 28 and 30 narrow at the angle α along the axis a_1 from the first end 26 to the throat 32 at the second end 34. The angle α suitably has any value as desired for a particular application. However, given by way of non-limiting example, in one embodiment the angle α has a value of around 28°. In another exemplary

Please amend page 9, line 23 as follows:

Referring now to FIGURE 2, a plurality of fasteners 50 extend through the clamp 20 and attach the beam capture device 10 to the support structure 23, such as an outlet port (not shown) of a device (not shown) for generating the beam of radiation.

The beam capture device 10 is designed to work without subjecting the body 18 to substantial local heating and to do so without active cooling. Yet because the beam capture device 10 will capture and absorb substantially all of the energy of the beam 14, there may be circumstances where it may be desirable to cool the beam capture device 10. Such cooling may be desired after use in order to return the body of the device 10 to the starting temperature so that it may be used again. If the input energy is high enough, successive runs without either active cooling or sufficient time for passive cooling may drive the bulk temperature of the device 10 above the melting temperature of the materials. Further, if the input energy is high enough, the device 10 may reach temperatures that pose a safety hazard to personnel or equipment.

In one exemplary embodiment, an inlet port 52 is arranged to be coupled to receive any acceptable coolant from a cooling system (not shown). An inlet header 54 extends into the body 18 and supplies coolant to a plurality of coolant channels 56 that extend throughout the body 18. The coolant channels 56 connect to an outlet header (not shown) that terminates at an outlet port 58. Cooling may be performed while the device 10 is exposed to radiation, after exposure to radiation, or both. It will be appreciated that any acceptable cooling system known in the art may be used to remove heat from the body 18. However, an exemplary cooling system that is well suited for use with the beam capture device 10 is set forth in concurrently filed U.S. Patent Application Ser. No. 10/720,650 entitled "Simple High Accuracy High Energy Calorimeter" ~~bearing attorney docket number BOEI 1-1198~~, the contents of which are hereby incorporated by reference.

Referring now to FIGURE 3, the opening 24 advantageously defines an aperture 25 in the body 18 that is larger than a footprint of the beam 14. It will be appreciated that the